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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/512,118

10/21/2004

Roel Truyen

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

TABATABAI, ABOLFAZL

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/512,118	Applicant(s) TRUYEN, ROEL	
	Examiner Abolfazl Tabatabai	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs, which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer- readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (Claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a

specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

2. **Claim 9** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

3. **Claim 9 recites** "A computer program to carry out the method according to....." embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV).. That is, the scope of the presently claimed "a computer software product" (line 1 of claim 9) can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The Examiner suggests amending the claim such as "**A computer-readable medium encoded with a computer program to carry out the method according**" or

equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Argiro et al (U.S. 5, 986, 662) in view of Watrous (U. S. 6, 629, 937 B2).

Regarding claim 1, Argiro discloses method of visualizing image data relating to medical examination of a subject, comprising the step of:

a) automatically selecting one or more appropriate protocols from a set of predefined protocols defining visualizing techniques (please note, to column 11, lines 44-51) to be applied to the image data, characterized in that (please note, to column 10, lines 27-41), the method further comprises the steps of:

b) analyzing the image data (10) (please note, to column 10, lines 22-26); and,

e) selecting one or more of the appropriate protocols in dependence of the anatomy part present and/or the purpose of the examination performed (30) (please note, to column 4, lines 18-31).

However, Argiro is silent about the specific details regarding the steps of:

c) deciding on the part of the subject's anatomy represented by the image data
(20); and/or

d) deciding on the purpose of the medical examination performed on the subject
(20).

In the same field of endeavor, however, Watrous discloses system for processing audio, video and other data for medical diagnosis and other applications comprising the steps of:

c) deciding on the part of the subject's anatomy represented by the image data
(20) (please note, to abstract and column 3, lines 3-20); and/or

d) deciding on the purpose of the medical examination performed on the subject
(20) (please note, to abstract and column 3, lines 3-20).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use deciding on the part of the subject's anatomy and deciding on the purpose of the medical examination as taught by Watrous in the system of Argiro because Watrous provides Argiro an improved system to support diagnostic decisions of anatomical features and is capable to virtually any living creature. The system allows physicians to provide improved objectivity, accuracy and consistency of diagnosis of auditory signals alone or in combination with other medically significant signals.

Regarding claim 2, Argiro discloses method according to claim 1, wherein step e) comprises the step of:

e1) selecting one or more appropriate protocols from a set of predefined protocols, a number of said predefined protocols defining processing techniques to be

applied to the image data (please note, to column 30, lines 66-67 and column 31, lines 1-4).

Regarding claim 3, Argiro discloses method according to claim 1, wherein step e) comprises the step of: e2) selecting one or more appropriate protocols from a set of predefined protocols, a number said predefined protocols defining techniques for Computer Aided Diagnosis (CAD) to be applied to the image data (please note, to fig. 1, element 100).

Regarding claim 4, Argiro discloses method according to claim 1 wherein step e) comprises the step of: e3) automatically selecting one or more appropriate protocols from a set of predefined protocols, a number said predefined protocols defining anatomy dedicated techniques to be applied to the image data please note, to column 10, lines 38-41 and column 20, lines 3-8).

Regarding claim 5, Argiro discloses method according to claim 1 wherein step e) comprises the step of: e4) automatically selecting one or more appropriate protocols from a set of predefined protocols, a number said predefined protocols defining display techniques to be applied to the image data (please note, to fig. 1, element 106).

Regarding claim 6 Argiro discloses method according to claim 1, wherein step b) comprises the step of comparing the image data to reference data (please note, to column 11, lines 64-66).

Regarding claim 8, Argiro is silent about the specific details regarding the method according to preceding claim 1, wherein step b) comprises the step of extracting salient structures present in the image data.

In the same field of endeavor, however, Watrous discloses system for processing audio, video and other data for medical diagnosis and other applications comprises the step of extracting salient structures present in the image data (please note, to column 8, lines 15-18).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the step of extracting as taught by Watrous in the system of Argiro because Watrous provides Argiro an improved system to support diagnostic decisions of anatomical features and is capable to virtually any living creature. The system allows physicians to provide improved objectivity, accuracy and consistency of diagnosis of auditory signals alone or in combination with other medically significant signals.

Regarding claim 9, Argiro discloses computer program to carry out the method according to claim 1 (fig. 1, element 100).

Claim 10 is similarly analyzed as claim 1 above.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Argiro et al (U.S. 5, 986, 662) and Watrous (U. S. 6, 629, 937 B2) as applied to claim 1, above and further in view of Braess et al (U.S. 6, 650, 729 B2) .

Regarding claim 7, Argiro is silent about the specific details regarding method according to preceding claim 1, wherein step b) comprises the step of subdividing the image data in coherent parts on the basis of expert knowledge.

In the same field of endeavor, however, Braess discloses device and method for adapting the radiation dose of an x-ray source comprises the step of subdividing the

image data in coherent parts on the basis of expert knowledge (please note, to column 2, lines 16-18).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the step of extracting as taught by Braess in the system of Argrio because Braess provides Argrio an improved x-ray device which is capable of producing x-ray images of higher quality of objects to be examined and it is advantageous that the evaluation of images regions of a given minimum format usually can be performed faster than the evaluation of all pixels individually.

Other Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ho et al (U. S. 6,580,937 B1) discloses method for optical imaging of the peripheral vasculature emphasizing digital arterial visualization in multi-station examination.

Heuscher et al (U. S. 6,154,516) discloses cardiac CT system.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to ABOLFAZL TABATABAI whose telephone number is (571) 272-7458.

The Examiner can normally be reached on Monday through Friday from 9:30 a.m. to 7:30 p.m. If attempts to reach the Examiner by telephone are unsuccessful, the

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Examiner's supervisor, Bhavesh Mehta, can be reached at (571) 272-7453. The fax phone number for organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abolfazl Tabatabai

Patent Examiner

Technology Division 2624

December 14, 2007

A-Tabatabai